

## ABSTRACT OF THE DISCLOSURE

A sample solution measuring device for detecting dissolved substances in a sample solution by measuring a potential difference between the sample solution and a reference solution, the sample solution measuring  
5 device, including: a sample solution container; a reference solution container; a substrate thin film is located between the sample solution container and the reference solution container and having a hole in which a bilayer lipid membrane is formed, where the sample solution and the reference solution come into contact with each other; a mechanism which forms the bilayer  
10 lipid membrane by ejecting a lipid solution; and, a mechanism which ejects a cleaning fluid to the substrate thin film.